Annex to the Decision of the President of ERO of April 10 2024 ref. no.: DRG.DRG-2.745.9.2024.JDo1

Reference Price Methodology no 3/OGP for the transmission network owned by Operator Gazociągów Przesyłowych Gaz-System S.A. for the period from 6:00 am on 1 January 2025 until 6:00 am on 1 January 2027

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1. Introductory information

The Reference Price Methodology (hereinafter referred to as "RPM") was developed for Gas Transmission Operator Gaz-System S.A., hereinafter referred to as the "the Operator", to calculate the fee rates for gaseous fuel transmission services provided using the network owned by the Operator. Based on the decision of the President of Energy Regulatory Office (hereinafter referred to as "the President of ERO") of 17 November 2010 r. ref. no.: DPE-4720-4(8)/2010/6154/BT, the Operator performs operator tasks on the network belonging to System Gazociągów Tranzytowych EuRoPol GAZ S.A. based in Warszawie (hereinafter referred to as "EuRoPol GAZ"). The reference price methodology determining reference prices for EuRoPol GAZ transmission network is included in a separate document

The decision of the President of ERO concerning the issues referred to in Article 28(1)(a) to (c) of the Commission Regulation (EU) 2017/460 of 16 March 2017 establishing a network code on harmonised transmission tariff structures for gas (OJ L 72 17.3.2017 p. 29), hereinafter referred to as "the Tariff Code", which takes into account the results of consultations held from 6 Sep. 2023 till 6 Nov. 2023 concerning, *inter alia*, multipliers and seasonal factors for short-term gas transmission services, discounts applied to entry points from LNG terminal and discounts used to calculate the base prices of standard interruptible capacity products in 2025 (hereinafter referred to as "the Communiqué")¹, has been published independently of the decision on the RPM, pursuant to Article 27(4) of Tariff Code.

The consultations on the issues referred to in Article 28(1)(a)-(c) of the Tariff Code, for the year 2026 will be carried out in the second half of 2024.

2. Legal disclaimers regarding the indicative nature of the data and calculation results contained in this document

All numerical data for 2025 and 2026 presented in this document (e.g. regulated revenue, contracted capacity, reference prices) are indicative and are only intended to illustrate the impact of the adopted the RPM on the level of transmission fees. These data do not constitute the basis for calculating the tariff during the RPM validity period.

In case of discrepancies between the Polish and English versions of this document, the document prepared in Polish is binding.

3. RPM validity period

The validity period of the RPM has been set at 2 years, i.e. for the period from 6:00 am on 1 January 2025 until 6:00 am on 1 January 2027².

Pursuant to Article 27(5) of the Tariff Code, the procedure covering the final consultation on the RPM, issuance of a decision on the RPM by the national regulatory authority, calculation of the tariff on the basis of that decision and publication thereof should be repeated at least every five years, starting on 31 May 2019.

The two-year validity period of the RPM results mainly from the fact that the majority of investment tasks related to the implementation of new connections between the National Transmission System

¹ Communiqué of the President of Energy Regulatory Office No. 4/2024 https://www.ure.gov.pl/en/markets/gas/factors-for-2025/357,Consultation-on-discounts-multipliers-and-seasonal-factors-for-2025-gas-transmis.html

² Compliant with the definition of gas day – Article 3(16) of the Commission Regulation (EU) 2017/459 of 16 March 2017 establishing a network code on capacity allocation mechanisms in gas transmission systems and repealing Regulation (EU) No 984/2013 (OJ L 72/, 17.03.2017, p. 1), hereinafter referred to as "NC CAM"

(i.e. the transmission system owned by the Operator - "NTS") and the EuRoPol GAZ transmission network will be completed in the perspective until 2027^3 . It is also important that the RPM validity period will be the same as for the methodology for the Operator's own network, which will facilitate future cooperation and integration of both systems.

The period of validity of the RPM is largely influenced by the scope of investments currently implemented by the Operator. These investments will have a significant impact on the level of: justified costs, return on capital employed, the volume of capacity orders at individual NTS entries and exits, and will cause a significant change in the flow of gaseous fuel in the network. It is difficult to predict to what extent the capacity at new entry/exit points to/from the transmission system will be incremental and to what extent it will replace the existing capacity. In this context, the current situation on the gas market and its development directions are also a source of significant uncertainty. The commissioning of the main part of the transmission system elements resulting from these investments is planned in 2027 perspective. More information on the expansion of the NTS can be found in point 7.1.7. this document.

Moreover, the adoption of a two years' period is also supported by the uncertainty regarding the future use of the capacity offered in the EuRoPol GAZ transmission system (decreasing transmission capacity reservations), caused by the current geopolitical situation, which results in capacity reservation in PWP entry into the NTS.

Based on this methodology and applicable regulations (mainly Energy Law Act⁴ and the tariff regulation⁵), the Operator calculates the tariff for its own network and submits it together with the justification to the President of ERO for his approval. The tariff period is the same as the year (from 6:00 a.m. on January 1 of a given year to 6:00 a.m. on January 1 of the following year).

Taking the above into account, the validity period of this RPM has been set at 2 years.

4. Description of the RPM (Article 26 (1) (a) of the Tariff Code)

Pursuant to § 6(1) of the Tariff Regulation⁶, the fee rates included in the tariff are calculated for a period of 12 months. However, pursuant to Article 47(5) of the Energy Law Act⁷, the Operator starts applying the tariff within the period specified by the President of ERO in the decision approving this tariff, no earlier than 14 days from the date of the decision publication.

The transmission rates are calculated based on the entry/exit model, with the application of the RPM, which is based on the cost factor of the planned transmission capacity - the so-called postage stamp method (PS). Only fixed fees related to the contracted capacity/transmission capacity $(gr^8/kWh/h/h)^9$ are calculated for entries and exits from the transmission system taking into account, for high-methane gas^{10} , a discount for storage installations (80%) and LNG installations (100%).

³ Table no. 3, https://www.gaz-system.pl/dam/jcr:15a14aec-298c-437f-938d-89aea14d251b/krajowy-plan-rozwoju-gaz-system-2024-2033-czesc-a-wyciag.pdf

⁴ the Act of 10 April 1997, the Energy Law (Dz. U 2024.266).

⁵ Regulation of the Minister of Energy of March 15, 2018 on detailed rules for shaping and calculating tariffs and settlements in gas fuel trade (Dz. U. 2021.280, as amended).

⁶ Regulation of the Minister of Energy of March 15, 2018 on detailed rules for shaping and calculating tariffs and settlements in gas fuel trade (Dz. U. 2021.280, as amended).

⁷ the Act of 10 April 1997, the Energy Law (Dz.U 2024.266)

^{8 100} gr = 1 PLN

⁹ According to Article 10 NC CAM.

¹⁰ High-methane natural gas, group E.

The same the RPM is used separately for the transmission system of high-methane and low-methane natural gas¹¹. These systems constitute separate balancing zones. The share of revenues from the provision of transmission services in the low-methane gas system is approximately 2.1% (for the data included in the Consultation Document).

The entry/exit division referred to in Article 30(1)(b)(v) of the Tariff Code, for the purposes of calculating indicative rates are adopted in proportion 45/55.

The calculated revenue in the tariff calculation for 2025 and 2026 will be divided into entries and exits from the transmission system in accordance with the adopted entry/exit division. After dividing the regulated revenue allocated to individual types of entry/exit points by the total contracted capacity (taking into account discounts applicable to UGS and LNG) and the number of hours per year, the transmission fee rate for entry/exit is obtained.

Variable rates based on fuel volumes referred to in Article 26(1)(c)(i) and Article 4(3)(a) and (b) of the Tariff Code are not expected to be applied.

The issue of non-transmission services¹² provided by the Operator is presented in point 5.2. of this document.

Application of the fixed payable price approach referred to in Article 26(1)(e) and Article 24(b) of the Tariff Code is not envisaged. The floating payable price approach referred to in Article 24(a) of the Tariff Code is applied.

4.1. Indicative information referred to in Article 30(1)(a) used in the RPM (Article 26(1)(a)(i) of the Tariff Code)

The RPM is based on the transmission capacity to be contracted as the only cost driver.

The amount of forecasted transmission capacities used in the calculation of reference prices for the tariff year "n+1" will be the sum of:

- **the firm and interruptible capacities** contracted for the tariff calculation year under the Open Season procedure, the capacities resulting from multi-years contracts and the capacities ordered as part of resolved auctions,
- the capacities contracted under the standard annual **firm and interrupted capacity** products as of the date of submitting the tariff application in the year "n",
- the expected capacities to be contracted as part of the standard annual firm and interrupted capacity products (also under multi-years orders, Open Season or auctions) for the year "n+1", resulting from the investments planned to be put into operation in the year "n" and "n+1", including resulting from the planned commissioning of new, modernized, reconstructed and expanded connections,
- the level of capacity **contracted** under quarterly, monthly and daily standard **firm and interrupted** capacity products in the calendar year "n-1" preceding the year "n" in which the tariff application is submitted.

separately for entries and exits to/from the transmission network:

- within high-methane and low-methane gas subsystems, and
- entries to and exits from the storage facilities within the high-methane subsystem.

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¹¹ Low-methane natural gas, group L, subgroup Lw.

 $^{^{12}}$ Non-transmission services means regulated services other than transmission services and other than services regulated by Regulation (EU) No 312/2014 that are provided by the transmission system operator (Article 3(15) of the Tariff Code).

The transmission capacity values adopted for the calculation of indicative reference prices for 2025 and 2026 are presented in table 1.

Table 1. The indicative transmission capacities in 2025 and 2026^{13} .

Transmission	Unit	2024 tariff		Indicative fo		Indicative forecast for 2026		
capacity		Е	L	E	L	Е	L	
Entries - total	kWh/h	53 247 084	1 138 602	53 630 528	1 138 602	53 630 528	1 138 602	
- IPs	kWh/h	17 641 400	-	15 034 666	-	15 034 666	-	
- Terminal LNG		7 963 614	-	10 953 792	-	10 953 792	-	
- UGS	kWh/h	24 827 520	-	24 827 520	-	24 827 520	-	
- others	kWh/h	2 814 550	1 138 602	2 814 550	1 138 602	2 814 550	1 138 602	
Exits - total	kWh/h	75 930 799	2 005 959	77 080 171	2 005 959	77 080 171	2 005 959	
- IPs	kWh/h	1 544 589	-	1 632 492	-	1 632 492	-	
- UGS		14 947 270	-	14 947 270	-	14 947 270	-	
- others	kWh/h	59 438 940	2 005 959	60 500 409	2 005 959	60 500 409	2 005 959	

4.2. Values of proposed adjustments of transmission tariffs based on capacity, referred to in Article 9 of the Tariff Code (Article 26 (1) (a) (ii) of the Tariff Code)

4.2.1. Discount for UGS14.

Pursuant to Article 9(1) of the Tariff Code, a discount of at least 50% shall apply to transmission tariffs based on capacity at entry points from storage facilities and exit points to storage facilities, excluding the storage facilities connected to more than one transmission or distribution network, to the extent in which the facility is used to compete with an interconnection point.

In the calculation of reference prices for both entry and exit points to/from storage facilities, a discount of 80% will be applied, which is consistent with the requirements set out in Article 9(1) of the Tariff Code. The adopted discount takes into account the benefits and costs that storage facilities provide for the entire transmission system and is to contribute to the effective utilisation of these facilities. The main benefits from storage facilities include:

- ensuring stability and integrity of the transmission system operation,
- ensuring flexibility in situations of increased demand for gaseous fuel both during the winter season and during daytime peaks.

In addition, its proximity to major demand centres makes it the most responsive source of supply that can be used to meet daily increases in gaseous fuel demand.

There are no storage facilities in the Polish transmission system that would be connected to more than one transmission or distribution network nor are they used to compete with interconnection points.

¹³ The forecasted transmission capacity at interconnection points takes into account the capacity at Ukraine entry/exit point (as a third country).

¹⁴ the underground gas storage facility within a storage facility is created.

4.2.2. Discount for LNG.

Pursuant to Article 9(2) of the Tariff Code, a discount may be applied to capacity-based transmission tariffs at the entry points from LNG facilities and at the entry points from and exit points to infrastructure designed to end Member States' isolation, within their gas transmission systems, in order to enhance security of supply.

The issue of the discount at the entry point from the LNG facility was the subject of separate consultations held from 6 September till 6 November 2023 pursuant to Article 28 of the Tariff Code and is included in a separate decision published by the President of the Energy Regulatory Office, which has been explained in point 1 of the RPM.

In the calculation of reference prices for the entry point from the LNG facility, a **100%** discount will be applied.

However, the issue of the discount at the entry point from the LNG terminal in 2026 will be the subject of separate consultations to be conducted in the second half of 2024.

4.3. Indicative reference prices (Article 26(1)(a)(iii) of the Tariff Code)

A comparison of the transmission tariffs for 2024 with the indicative tariffs for 2025 and 2026, calculated in accordance with the RPM is presented in table no 2.

The indicative transmission fee rates presented in this table were calculated using the transmission capacity forecast included in Table 1 and the revenue allowed for E gas adopted for the tariff calculation for 2024, taking into account the increase in revenue estimated by the Operator resulting solely from the planned commissioning of new investments in 2025 (PLN 195.7 million) and in 2026 (PLN 431.3 million). For L gas, both for 2025 and 2026, the assumed revenue was equal to that planned for 2024.

Table 2. A comparison of the transmission tariffs.

Gas transmission network	Reference prices [gr/kWh/h/h]	2024 (valid)	2025 (indicative)	2026 (indicative)	Change [%] 5/4	Change [%] 4/3
1	2	3	4	5	6	7
	Entry points	0,6617	0,7834	0,8365	6,78%	18,39%
	Exit points	0,3214	0,3355	0,3582	6,77%	4,39%
Gas E	Entry from UGS	0,1323	0,1567	0,1673	6,76%	18,44%
	Exit to UGS	0,0643	0,0671	0,0716	6,71%	4,35%
	Entry from LNG	0,0000	0,0000	0,0000	-	-
Cool	Entry points	0,3092	0,3100	0,3100	0,00%	0,26%
Gas L	Exit points	0,2145	0,2151	0,2151	0,00%	0,28%

It should be emphasized that the issue of determining and verifying the value of the forecast regulated revenue is not covered by the provisions of the Tariff Code and it will be verified in separate proceedings regarding the approval of the tariffs for gaseous fuel transmission services for 2025 and 2026, in particular on the basis of the provisions of the Energy Law and the tariff regulation.

4.4. Comparison of the indicative reference prices arising from the application of this methodology with the indicative prices calculated using the capacity weighted distance methodology (CWD) (Article 26(1)(a)(vi) of the Tariff Code)

Table 3 shows a comparison of the reference prices calculated in accordance with the postage stamp methodology and prices calculated in accordance with the CWD methodology, including discounts for storage facilities (80%), LNG facilities (100%) and for interruptible transmission services – 6% for interconnection points and 2% - for internal points.

Table 3. A comparison	of transmission tariffs.	including discounts	[gr/kWh/h/h].

		Towiff food the		Tariff fee -	CWD RPM	(50/50)
Tariff group	Type of point	Tariff fees - the postage stamp RPM (50/50)	minimal	maximal	average	capacity weighted averarage
	Gas fields	0,8704	0,5703	0,5705	0,5705	0,5705
	IPs	0,8704	0,4958	1,1656	0,7623	1,0367
Entry	LNG Terminal	0,0000	0,0000	0,0000	0,0000	0,0000
	Nitrogen removal plants	0,8704	0,4137	0,5426	0,4782	0,4709
Entry UGS		0,1741	0,0907	0,1459	0,1145	0,1123
	IPs	0,3050	0,3487	0,5261	0,4239	0,4487
Exit	Distribution	0,3050	0,1417	0,4218	0,3083	0,3026
	End users	0,3050	0,2226	0,4015	0,3065	0,2916
Exit UGS		0,0610	0,0524	0,0789	0,0675	0,0645
	Gas fields	0,3444	0,2620	0,6588	0,5095	0,3650
Entry L	Nitrogen removal plants	0,3444	0,1214	0,4155	0,2909	0,3062
Evit I	Distribution	0,1955	0,0083	0,3401	0,1715	0,1949
Exit L	End users	0,1955	0,1780	0,2438	0,2058	0,2002

Differences in reference prices for high-methane gas calculated in accordance with the CWD methodology compared to the postage stamp methodology result from the assumptions of the CWD method, which takes into account the distances of entry and exit points in the rate calculation. Points with relatively higher rates are the points poorly connected to other points and located on the periphery of the transmission system, while points with relatively lower rates are points most often located inside the system, with numerous connections to other points that can be supplied from many sources of gaseous fuel supplies.

For the rates taking into account discounts (Table 3), the largest differences between the postage stamp methodology and the CWD methodology occur at border entry points, for which the weighted average rate according to the CWD methodology would be higher. At entry points from gas fields, nitrogen removal plants and gas storage facilities, the weighted average rates according to the CWD methodology are lower. For exit points, the largest difference also occurs for border points, for which the weighted average rate according to the CWD methodology is higher, while for the remaining exit points, the rates are similar for both methodologies.

For low-methane gas, there are no significant differences between the rates calculated according to the postage stamp methodology and the weighted average rates according to the CWD methodology.

A comparison of reference prices calculated in accordance with the postage stamp methodology and prices calculated on the basis of the CWD methodology for high-methane gas, without the application of discounts for storage facilities, LNG installations and interruptible services, is presented in table no. 4.

When comparing fee rates calculated without taking into account discounts (80% for the UGS and 100% for the LNG terminal), presented in Table 4, the differences are similar to those in the case of the comparison taking into account discounts, except that the rate at the entry point from the LNG terminal according to the CWD methodology is higher than the rate according to the postage stamp methodology.

Table 4. A comparison of transmission tariffs, without discounts [gr/kWh/h/h].

	Tariff fees -		Tariff fee - CWD RPM (50/50)					
Tariff group	Type of point	the postage stamp RPM (50/50)	minimal	maximal	average	capacity weighted averarage		
	Gas fields	0,3701	0,2792	0,2793	0,2792	0,2792		
	IPs	0,3701	0,2427	0,5706	0,3732	0,5075		
Entry	LNG Terminal	0,3701	0,4260	0,4260	0,4260	0,4260		
	Nitrogen removal plants	0,3701	0,2025	0,2656	0,2341	0,2305		
Entry UGS		0,3701	0,2219	0,3572	0,2803	0,2750		
	IPs	0,2577	0,2920	0,4405	0,3550	0,3758		
Exit	Distribution	0,2577	0,1186	0,3532	0,2582	0,2534		
	End users	0,2577	0,1864	0,3362	0,2566	0,2442		
Exit UGS		0,2577	0,2195	0,3305	0,2827	0,2701		
	Gas fields	0,3444	0,2620	0,6588	0,5095	0,3650		
Entry L	Nitrogen removal plants	0,3444	0,1214	0,4155	0,2909	0,3062		
Exit L	Distribution	0,1955	0,0083	0,3401	0,1715	0,1949		
EXIL L	End users	0,1955	0,1780	0,2438	0,2058	0,2002		

4.5. Results and components of the assessment of the cost allocation referred to in Article 5 and details of these components (Article 26(1)(a)(iv) of the Tariff Code) and the split between intra-system and cross-system (Article30(1)(b)(V)(3) of the Tariff Code)

Pursuant to Article 5(1) of the Tariff Code, the regulatory authority or the transmission system operator, depending on the decision of the national regulatory authority, shall perform an assessment of the allocation of costs concerning revenues from transmission services to be recovered in the form of capacity-based transmission tariffs and shall publish them in the final consultation referred to in Article 26 of the Tariff Code.

Table no. 5 presents the assessment of cost allocation for the high-methane gas transmission system, because there are no interconnection points in the low-methane gas system. This assessment was based on the cost factor, which is the transmission capacity planned to be contracted.

Pursuant to the provisions of Article 5(6) of the Tariff Code, if the value of the cost allocation index (CAA) presented in table no. 5 does not exceed 10%, it is not required to justify this value in the

decision of the regulatory body referred to in Article 27(4). The index value confirms that there is no excessive cross-subsidisation between intra-system and cross-system utilisation of the transmission network.

The values of the CAA for the CWD methodology (30.46% for rates including discounts and 20.98% without discounts) significantly exceed the limit value of 10% and the values according to the postage stamp methodology, thus justifying the choosing the postage stamp method for the Operator's own network.

Table 5. Cost allocation assessment (CAA) for 2025

		Postage stamp methodology (45/55)			
CAA	Unit	discont (UGS 80%, TLNG 100%, Ex-ante 6% and 2%)	no discount		
1	2	3	4		
Allowed revenue	1000 PLN	3 479 302	3 479 302		
Entry charge (cross-system)	gr/kWh/h/h	0,3331	0,3331		
Exit charge (cross-system)	gr/kWh/h/h	0,3355	0,2834		
Capacity - intra-system	kWh/h	127 462 509	127 462 509		
Capacity - cross-system	kWh/h	3 264 985	3 264 985		
Revenue (cross-system entry)	1000 PLN	47 639	47 635		
Revenue (cross-system exit)	1000 PLN	47 979	40 528		
Revenue (cross system total)	1000 PLN	95 617	88 163		
share	%	3%	3%		
Revenue (intra-system)	1000 PLN	3 383 685	3 391 138		
share	%	97%	97%		
Cross-system network use index	PLN/kWh/h	29,29	27,00		
Intra-system network use index	PLN/kWh/h	26,55	26,60		
CAA	%	9,81%	1,48%		

^{*} in column 3 – average charge for entry and exit UGS points and TLNG entry point

4.6. Evaluation of the reference price methodology as regards compliance with the requirements of Article 7 of the Tariff Code (Article 26(1)(a)(v) of the Tariff Code)

Pursuant to Article 7 of the Tariff Code, the reference price methodology must comply with Article 13 of Regulation (EC) No 715/2009 and with the following requirements.

This method should:

- a) enable network users to reproduce the calculation of the reference prices and provide their accurate forecast;
- b) take into account actual costs incurred in connection with providing transmission services, including the complexity of the transmission network;
- c) ensure non-discrimination and prevent undue cross-subsidisation, among others, by taking into account cost allocation assessments as set out in Article 5;
- d) ensure that significant volume risk associated in particular with transmission via given entry-exit system is not assigned to final customers within that entry-exit system;

e) ensure that the reference prices received do not distort cross-border trade.

This reference price methodology meets all the above requirements. In addition, it should be stressed that this methodology is simple and transparent, thanks to which the transmission system users can easily reproduce the calculation of reference prices and estimate their changes in the future.

- **4.6.1** The tariff models for high-methane and low-methane gas published on the website enable network users to reproduce the reference price calculations and their forecast. The accuracy of this forecast is limited by the accuracy of estimates of revenue developments and capacity orders. Under this methodology, the final regulated revenue shall be determined annually in the tariff approval proceedings.
- **4.6.2** The methodology takes into account the actual costs incurred in providing transmission services. Based on actual costs of transmission services provision, disclosed in the audited financial statements, forecasts of justified costs for tariff calculation are made.

As the Polish transmission system is meshed, determining the method of allocation of actual costs to points of the transmission system is very difficult, hence the methodology of the so-called postage stamp, according to which the costs allocated to a given point of the transmission system are proportional to the projected ordered capacity, was applied. Due to the fact that the users, thanks to the multiplicity of entries (including UGS, production and intersystem connections), use the transmission system to the same extent, this approach is justified. There are many interconnections in the transmission network and the points are quite densely and evenly distributed on the topographic map of the transmission system. Various gas flow pattern - various delivery schema, due to the commissioned border connections (Baltic Pipe, GIPL, Vyrava) and terminal LNG development show the possibility to supply gas from all entry points. Such a network of connections allows for the assumption that all users of the transmission system use the transmission system equally, and therefore they should bear proportionally the costs of its development and operation. The transmission system diagram is presented on page 17.

In this system, distance is not a significant cost driver, which was confirmed by comparing the results obtained using the postage stamp methodology with the CWD methodology, presented in item 4.4.

4.6.3 The methodology ensures non-discriminatory treatment of transmission system users as the same transmission rates are applied to all users of gas transmission services at entry points and the same at exit points. Discounts/adjustments are applied to entry/exit points from storage facilities and entry points from LNG facilities in accordance with the provisions of the Tariff Code.

The result of the cost allocation assessment referred to in Article 5 of the Tariff Code, presented in item 4.5 (9.81%), confirms that there is no excessive cross-subsidisation between cross-system and intra-system users. In addition, comparison of fee rates resulting from the postage stamp methodology with the CWD methodology presented in point 4.4 shows that there is no excessive subsidization in between individual network users. It should be noted that due to the meshed transmission system (66 entry points and 880 exit points), the results of this comparison are approximate, because in such situation it is impossible to precisely assign costs to a given point, because individual entry and exit points are not cost centres to which specific costs are assigned, which would require the use of generalized cost allocation keys.

Moreover, the proposed postage stamp method also prevents cross-subsidization between the high-methane gas and low-methane gas subsystem, thanks to the fact that the rates of transmission fees are calculated on the basis of regulated revenue determined separately for each gas subsystem. Therefore, the tariffs applied to the high-methane gas and low-methane gas subsystems respectively cover the costs of these transmission subsystems and do not lead to cross-subsidization.

- **4.6.4** Due to the limited use of the system for cross-border transmission (the share of transit about 3%) and the exclusive application of fixed rates based on capacity, there is no risk of increased costs being allocated to final customers due to lack of capacity orders by users of cross-system services.
- **4.6.5** Reference prices do not distort cross-border trade, as there is no discrimination of transmission system users and cross-subsidisation. The same level of transmission fees is used for all entry points and the same level for all exit points, therefore there are no price preferences for a specific flow of gaseous fuels.
- 5. Indicative information referred to in Article 30(1)(b)(i), (iv) and (v) of the Tariff Code (Article 26(1)(b) of the Tariff Code)

5.1. Allowed revenue of the transmission system operator (Article 30(1)(b)(i) of the Tariff Code)

Regulated revenue approved by the President of ERO is the sum of forecasted justified operating costs related to regulated activity for a given tariff year and return on capital employed.

The regulated revenue is determined for a period of 12 months in administrative proceedings on the approval of the tariff.

Pursuant to Article 10 (1)(1)(a-d) of the Tariff Regulation regulated revenue is covered by the revenue earned from:

- a) transmission rates,
- b) fees for exceeding contracted capacity in the year preceding the year in which the tariff is submitted for approval,
- c) fees for services performed at the additional demand of the customer (the quality testing of gaseous fuels supplied, interruption or resumption of the supply of gaseous fuels) achieved during the year preceding the year in which the tariff was submitted for approval,
- d) revenues under the performance of the contract referred to in Article 9h (3) (2) of the Energy Law Act, as well as from the performance of activities arising from the decision referred to in Article 9h (9) of the Energy Law Act (balance of revenues and costs).

Pursuant to the administrative decision No. DRG.DRG-2.745.3.2021.JDo1¹⁵ dated of 26th August 2021 issued upon Article 19(5) of the Tariff Code the total revenues from the auction premium, which will be achieved by the Operator in 2022 and the following years in connection with the sale of contracted capacity / transmission capacity in its own transmission network, will be used to reduce tariffs for subsequent tariff periods. This decision is of particular importance due to the planned large increase in value of the regulatory assets (RAB) in the coming years due to the completion of capital-intensive investments.

¹⁵ https://bip.ure.gov.pl/bip/taryfy-i-inne-decyzje-b/inne-decyzje-informacj/4002,Inne-decyzje-informacje-sprawozdania-opublikowane-w-2021-r.html

The regulated revenue will also be reduced by the financial result earned from the provision of services by the GSA platform and possible revenues from the provision of services by gas quality measurement laboratories and calibration of gas meters for third parties.

Pursuant to Article 7(10) of the Energy Law Act, costs arising from expenditures on connection of entities applying for connection to the gas network, to the extent that they have been covered by revenues from grid connection fees, do not constitute a basis for determining the tariff rates for the transmission of gaseous fuels.

Due to the fact that the Tariff Code does not include detailed rules for determining regulated revenue, which are included in the Energy Law and the tariff regulation, this issue will not be explained in more detail in this paper.

5.2. Non-transmission services and tariffs (Article 26 (1) (c) (ii) of the Tariff Code)

Pursuant to Article 4 (1) of the Tariff Code, a given service is included in transmission services, provided that both of the following criteria are met:

- the costs of such service are caused by the cost drivers of both technical or forecasted contracted capacity and distance;
- the costs of such a service are related to the investment in and operation of infrastructure which is part of the regulated asset base for the provision of transmission services.

If any of the above criteria is not met, a given service may be classified as transmission or non-transmission service depending on the findings of the periodic consultations by the transmission system operator and decisions of the national regulatory authority.

In accordance with the Consultation Document, the Operator planned revenues for non-transmission services in the amount of PLN 102 million, including PLN 33 million for compression services and PLN 69 million for pressure reduction services. For the calculation of indicative rates for 2025 and 2026, the revenue assumed was equal to the revenue included in the calculation of the tariff change for 2024 approved by the decision of December 15, 2023.

It should be emphasized that all data and assumptions adopted by the Operator to calculate the rates for compression services and gas pressure reduction services in the Consultation Document are indicative and will be subject to final verification during the administrative procedure for tariff approval.

In the event of the emergence of non-transmission services other than those identified to date, the revenues from these services will be included in the regulated revenue.

Moreover, in order to avoid cross-subsidization, insufficiently or excessively recovered revenues from the non-transmission services provided will be reconciled/settled separately from gaseous fuel transmission services. For this purpose, three sub-accounts will be created for the Operator's regulatory account for its own network: (i) for gaseous fuel transmission services, (ii) for non-transmission services of gaseous fuel pressure reduction and (iii) for non-transmission services of gaseous fuel compression. The balance of each subaccount will be included in the calculation of tariffs for individual services in subsequent years.

Thanks to this solution, the requirements specified in Article 4 (1)(b) of the Tariff Code, according to which rates for non-transmission services "shall be applied to the beneficiaries of a given non-transmission service in order to minimize cross-subsidies between network users in or outside a Member State, or both" and thus increase the cost-reflection of rates transmission and non-transmission fees.

5.3. Compression services

At the user's request, the operator will offer the gaseous fuel compression service at selected (6) entry points to the transmission system, in particular for the delivery of natural gas from local gas fields. The service will be provided with the use of compressor stations, the capacity of which is not fully used for system needs. The revenue covering the costs of compressor stations in the part allocated to the provision of gaseous fuel compression services (by excluding costs related to the provision of transmission services) and the return on capital on assets or their part involved in the provision of compression services, will be recovered at the entry points to the gas transmission system in the form of monthly fees

The monthly fee for the compression service will be the sum of the two components:

- a) the fixed subscription fee based on fixed costs of the compression service for a given gas compressor station [PLN / month];
- b) variable fee constituting the product of:
 - amount of gas used to drive compressors in a given compressor station in the part related to the provided gaseous fuel compression service [kWh] and
 - reference gas price (CRG¹6) for the high-methane gas balancing area defined as the price representing the weighted average purchase price of gaseous fuel by the Operator in the gas month preceding the month in which the CRG will be published [PLN/kWh]. The published CRG price for the period covered by the billing is accepted for billing. For this reason, revenue from the variable fee is not approved in the tariff proceedings and is not subject to settlement through the regulatory account.

The calculation of indicative fee rates for the provided gaseous fuel compression services is presented in Table 6.

Table 6

Communication	Unit	2024	2025	2026	
Compression	Unit	Gas E	Gas E	Gas E	
Subscription fee revenue	1000 PLN	27 560,20	27 560,20	27 560,20	
Revenue from gas sales	1000 PLN	5 736,08	5 736,08	5 736,08	
Volume of compressed gas	MWh/h	21 756,50	21 756,50	21 756,50	
Number of entry points	pcs.	6	6	6	
Subscription fee rate	PLN/EP/mth	382 781	382 781	382 781	
Variable fee rate (gas price)*	PLN/kWh	0,2636	0,2636	0,2636	

^{*} the variable fee rate is not approved in the tariff because the CRG price published by the Operator is used for settlement.

5.4. Pressure reduction services

The gas pressure reduction service will be provided by the Operator using the pressure reduction units installed at exit points from the transmission system in order to reduce gas pressure to medium and / or low pressure at the connection point of the gas station with the customer's installation.

Upon this service, cross-subsidization between the customers requiring gas pressure reduction service (655 points) to medium and / or low pressure and:

¹⁶ https://swi.gaz-system.pl/swi/public/#!/ksp/crg?lang=pl

- customers with their own reduction and measurement stations and
- customers who do not need an additional pressure reduction service,

will be limited.

The application of fees for the gas pressure reduction service (from 2023¹⁷) means that the costs related to, inter alia, with the operation, renovation and modernization of reduction and measurement stations¹⁸ are borne by customers using these services. In previous tariffs these costs were included in the calculation of the charges for the transmission of gaseous fuels and thus incurred jointly and severally by all users (the so-called socialized).

The revenue covering the costs related to the operation of pressure reduction and metering stations in the scope of the provision of reduction services and the return on capital on assets or their part involved in the provision of pressure reduction services, will be recovered at the exit points from the gas transmission system where the pressure reduction service is required, in the form of fixed fees depending on the contracted capacity / transmission capacity [gr/kWh/h/h]. The rate of this fee will be calculated as the quotient of the regulated revenue related to reduction services and the sum of contracted capacities / capacities at transmission system exit points, where it is necessary to provide the pressure reduction service by the Operator, and the number of hours in a year.

The calculation of indicative fee rates for the provided gas pressure reduction service is presented in Table 7.

Table 7.

Pressure reduction	Unit		2024			2025			2026	
Pressure reduction	UIII	Gas E	Gas Lw	Total	Gas E	Gas Lw	Total	Gas E	Gas Lw	Total
Revenue	1000 PLN	67 984	2 592	70 576	67 984	2 592	70 576	67 984	2 592	70 576
Ordered capacity	MWh/h	28 000	1 291	29 291	28 000	1 291	29 291	28 000	1 291	29 291
Number of points	pcs.	589	66	655	589	66	655	589	66	655
Tariff	gr/kWh/h	0,0276	0,0229	-	0,0277	0,0229	-	0,0277	0,0229	-

6. Indicative information referred to in Article 30(2) of the Tariff Code (Article 26(1)(d) of the Tariff Code)

The Operator's website contains simplified tariff models which allow to calculate the indicative reference prices of standard capacity products proposed for 2025 and 2026 tariff year and to estimate them for the following year, with any selection of parameters concerning the revenue entry/exit split or appropriate adjustments (discounts for UGS and LNG).

¹⁷ The recommendation set out in recital 8,9 indent 5 and in section 5.3 of the ACER Analysis were then taken into account (https://extranet.acer.europa.eu//Official_documents/Acts_of_the_Agency/Publication/Agency%20report%20-%20analysis%20of%20the%20consultation%20document%20for%20Poland_National.pdf).

¹⁸ Including: gas heating systems (for boiler rooms and fuel gas consumption) and pressure reduction facilities (three-level of pressure safety).

Table 8. indicative prices calculation

Natural and transmission and transmission	Tinia	202	5	2026		
Natural gas transmission network	Unit	Е	L	E	L	
Calculation revenue	1000 PLN	3 479 301 892	68 710 409	3 714 926 350	68 710 409	
Revenue share at entries	%	45	45	45	45	
Revenue split Entry/Exit	%	45/55	45/55	45/55	45/55	
Discount at entries from UGS	%	80	80	80	80	
Discount at exits to UGS	%	80	80	80	80	
Discount at entries from LNG installation	%	100	100	100	100	
Capacity at entries	kWh/h	17 849 216	1 138 602	17 849 216	1 138 602	
Capacity at entries from UGS	kWh/h	24 827 520	-	24 827 520	-	
Capacity at entries form LNG installation	kWh/h	10 953 792	-	10 953 792	-	
Capacity at exits	kWh/h	62 132 901	2 005 959	62 132 901	2 005 959	
Capacity at exits to UGS	kWh/h	14 947 270	-	14 947 270	-	
Rate at entries	gr/kWh/h/h	0,7834	0,3100	0,8365	0,3100	
Rate at entries from UGS	gr/kWh/h/h	0,1567	-	0,1673	-	
Rate at entries from LNG	gr/kWh/h/h	0,0000	-	0,0000	-	
Rate at exits	gr/kWh/h/h	0,3355	0,2151	0,3582	0,2151	
Rate at exits to UGS	gr/kWh/h/h	0,0671	-	0,0716	-	
Revenue covered by transmission rates, including:	1000 PLN	3 479 656	68 718	3 715 181	68 718	
Rates based on capacities	1000 PLN	3 479 656	68 718	3 715 181	68 718	
Rates based on volume	1000 PLN	-	•	-	-	
Revenue for entry and exit points combined, including:	1000 PLN	3 479 656	68 718	3 715 181	68 718	
Entry points	1000 PLN	1 565 723	30 920	1 671 803	30 920	
Exit points	1000 PLN	1 913 933	37 798	2 043 378	37 798	
Total revenue for high-methane (E) and low-methane (L) gas	1000 PLN	3 548	373	3 783 899		

The rates at UGS points were obtained by applying a discount of 80% to the rate at entries and exits. The calculation of entry/exit rates takes into account 20% of the power at entries/exits from storage facilities, which results from the mathematical equation. This approach is identical to the application of rescaling referred to in Article 6(4)(c) of the Tariff Code.

The above table also presents indicative revenues from transmission services referred to in Article 30(1)(b)(iv) and (v) of the Tariff Code.

7. Description of the gas transmission system of Operatora Gazociągów Przesyłowych GAZ-SYSTEM S.A.

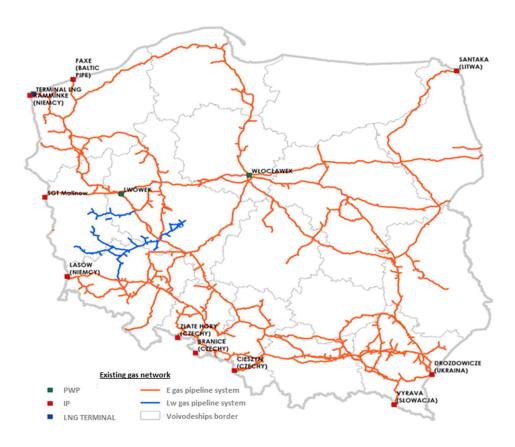
The transmission system included in the Operator's assets consists of a part related to the transport of high-methane gas (group E) and low-methane gas (group L, subgroup Lw) of total length 12 121 km.

Table 9. Length and diameters of pipelines – status as at December 31, 2023 r.

Pipeline diameter DN	Gas E	Gas L	Total
[mm]	[km]	[km]	[km]
DN ≤ 100	708	164	871
100 < DN ≤ 300	2 679	422	3 101
300 < DN ≤ 400	1 246	52	1 298
400 < DN ≤ 500	2 819	56	2 876
500 < DN ≤ 700	2 231	0	2 231
700 < DN ≤ 900	359	0	359
900 < DN ≤ 1000	1 384	0	1 384
TOTAL	11 426	695	12 121

7.1. High-methane gas transmission system (group E) - as of 31 December, 2023

Scheme no 1. The scheme of natural gas transmission system (group E and Lw).



7.1.1. The high-methane gas system forms a main system comprising:

- a) The gas system belonging to EuRoPoL GAZ (SGT),
- b) North-South Corridor constituting a system of gas pipelines built in recent years on the route LNG Terminal in Świnoujście - Goleniów - Lwówek - Odolanów - Kędzierzyn -Tworóg - Tworzeń - Pogórska Wola - Strachocina - Hermanowice along with the Poland -Slovakia Interconnector
- c) The Baltic Pipe offshore gas pipeline and its inclusion in the National Transmission System on the Niechorze Płoty route,

- d) Poland-Lithuania gas pipeline which also supplies gas for eastern and north-western Poland, together with the Rembelszczyzna Hołowczyce and Hołowczyce Wronów gas pipelines,
- e) East main pipeline on the route Hermanowice Jarosław Wronów Rembelszczyzna,
- f) The North main pipeline connecting the gas supply sources located in the north-west of the country (Terminal LNG w Świnoujściu, Baltic Pipe) with the Tricity agglomeration (Gdańsk, Gdynia, Sopot) area on the Szczecin Gdańsk route,
- g) Gas supply system for central Poland on the Gustorzyn Rembelszczyzna and Gustorzyn
 Odolanów route,
- h) Gas supply system for central and eastern Poland on the Gustorzyn Wronów route (the system was put into operation at the turn of 2023/2024),
- i) Gas supply system for northern Poland on the Gustorzyn-Gdańsk route,
- j) Transmission system in Lower and Upper Silesia.

Gas flows in the system vary depending on the demand for gas, the operation of connected facilities (gas storage facilities, LNG terminal) and gas import.

- 7.1.2. The Operator's transmission system is supplied with high-methane gas at 56 entry points:
 - a) Entries to the national transmission system (gas import):
 - GCP GAZ-SYSTEM/UA TSO with a technical transmission capacity 5,65 GWh/h,
 - Mallnow with a technical transmission capacity 11,57 GWh/h,
 - GCP GAZ-SYSTEM/ONTRAS with a technical transmission capacity 2,03 GWh/h,
 - Cieszyn with a technical transmission capacity 1,17 GWh/h,
 - Branice with a technical transmission capacity 0,002 GWh/h,
 - Terminal LNG with a technical transmission capacity 9,47 GWh/h,
 - Interconnection point with Denmark (Faxe-entry) 13,41 GWh/h,
 - Interconnection point with Lithuania (Santaka-entry) 2,42 GWh/h,
 - Interconnection point with Slovakia (Vyrava-entry) 7,25 GWh/h,
 - b) Entries from high-methane natural gas fields, located in SE Poland (37 gas fields),
 - c) Entries from the nitrogen removal plants (Odolanów and Grodzisk Wielkopolski),
 - d) Entries from underground gas storage facilities (7 storage facilities).
- 7.1.3. 14 compressor stations with the installed power of 133 MW operated in the transmission system.
- 7.1.4. The transmission system is connected with other systems and large industrial customers at 874 exit points (without exit points to UGS and points supplying system facilities), including at 7 cross-border interconnection points.
- 7.1.5. The annual volume of transported natural gas in 2023 was 248,4 TWh, of which 176.1 TWh to intra system exit points, 8.7 TWh for export and 28.6 TWh was injected into UGS.
- 7.1.6. 7 underground gas storage facilities with a total working volume of 3.33 BCM (37,5 TWh) cooperate with the transmission system¹⁹:
 - a) 2 UGS developed in salt caverns with working volume of 877,7 MMCM (9,8 TWh),

¹⁹ https://ipi.gasstoragepoland.pl/en/menu-en/transparency-template/?page=operational-data/operational-data/operational-data/

- b) 5 UGS developed in partly depleted natural gas fields with working volume of 2 450 MMCM (27,7 TWh).
- 7.1.7. The Operator's infrastructure development.

The investments covered by the national ten-year transmission system development plan for 2024-2033²⁰ take into account two development perspectives, i.e.:

- Perspective 2027 including the continuation of initiated investment programs defined in previous Development Plans,
- Perspective 2033 includes investment tasks whose implementation will depend on the level of development of gas markets in Poland and the region.

Table 10. Key and strategic investments planned until 2033

No.	Project	Perspective 2027	Perspective 2033
1	Gustorzyn – Wronów pipeline	Х	
2	Rembelszczyzna – Mory pipeline	X	
3	Stanisławów – Wola Karczewska pipeline		Х
4	Gas compressor station Hołowczyce (development)	X	
5	Wronów – Rozwadów pipeline		X
6	Rozwadów – Strachocina pipeline		X
7	Gas compressor station Lwówek (construction) gas node Lwówek (development)	X	
8	Interconnection NTS with SGT in Zambrów	X	
9	Interconnection NTS with SGT in Ciechanów	X	
10	Interconnection NTS with SGT in Długa Goślina	X	
11	Interconnection NTS with SGT in Wydartowo	X	
12	Interconnection NTS with SGT in Włocławek	X	
13	Oświęcim – Tworzeń pipeline	X	
14	Kędzierzyn – Racibórz pipeline	X	
15	Skoczów – Komorowice – Oświęcim pipeline		X
16	Racibórz – Rybnik pipeline	X	
17	Rybnik - Oświęcim pipeline		X
18	Gas compressor station Kędzierzyn (development)	X	
19	Kolnik – Gdańsk – FSRU pipeline (onshore)	X	
20	Kolnik – Gardeja – Gustorzyn pipeline	X	
21	Kolnik – Gdańsk – FSRU pipeline (offshore)	X	
22	Terminal FSRU (unit)	X	
23	UGS Damasławek – Mogilno pipeline		X
24	UGS Damasławek		X
25	Wężerów – Przewóz pipeline	X	
26	Lewin Brzeski – Nysa pipeline	X	
27	Terminal LNG (development)	X	
28	Nowe Tłoki – Sulechów pipeline	X	
29	Kotowice – Krzeczyn pipeline	Х	
30	Krzeczyn – Legnica pipeline		Х

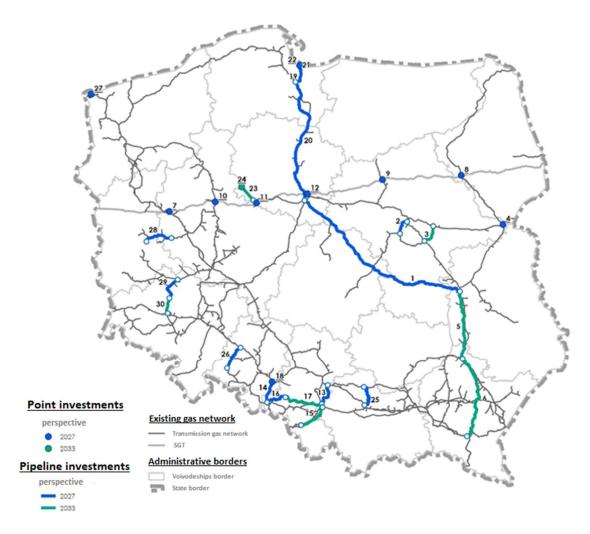
 $^{^{20}\} https://www.gaz-system.pl/en/transmission-system/development-of-the-transmission-system/national-development-plans.html$

The above list of key and strategic investments largely includes continuing tasks for which the design or implementation phase has been initiated in recent years.

The implementation of the above projects in the perspective of 2027 will enable the creation of infrastructure for a fully diversified gas market. The expansion of the NTS in the said horizon will result in ensuring fully safe and effective conditions for the transmission of gaseous fuels, both for domestic customers and potential export directions.

In Perspective 2033, investments are planned to increase the country's energy security or to expand transmission capacity in those regions of Poland where the consumption of gaseous fuel will increase, including: for power generation needs (Warsaw agglomeration or Upper Silesia).

The key and strategic investments planned in the years 2024-2033

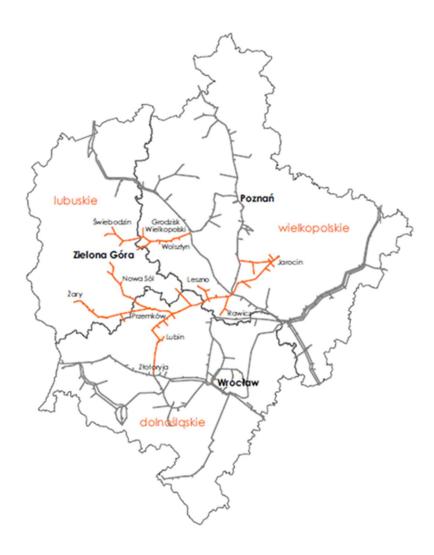


7.2. Low-methane natural gas system (group L, subgroup Lw) - as for 31 December 2023

The low-methane natural gas system (group L, subgroup Lw) is a local gas subsystem of an island nature in western Poland in the Lubuskie, Wielkopolskie and Dolnośląskie Voivodships. The only sources and regulators in this system are the natural gas fields, e.g.: Kościan-Brońsko, Białcz, Radlin, Kaleje (Mchy), Roszków and the natural gas mixing plant in Grodzisk Wielkopolski (connected to the nitrogen removal plant, which is a facility dedicated

to the gas production sector) - a total of 8 entry points. The low-methane natural gas transmission system is not directly connected to the high-methane gas transmission system. In the low-methane gas system, gas is delivered to 78 exit points (73 to DSOs and 5 to end users) and is characterized by a small, stable growth. The annual volume of transported natural gas amounted to approx. 6.8 TWh^{21} .

Scheme no 2. Low-methane natural gas system scheme.



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 $^{^{21}\, \}underline{\text{https://www.ure.gov.pl/pl/paliwa-gazowe/hurtowy-rynek-gazu-zie/5243,} \underline{\text{Hurtowy-rynek-gazu-ziemnego-monitoring.html}}$